

Chapter 7

Juniper Networks Enterprise-Specific SNMP Traps

This chapter summarizes the enterprise-specific SNMP traps supported by the JUNOS software. For scalability reasons, the MPLS traps are generated by the ingress router only. For information on disabling the generation of MPLS traps, see the *JUNOS Internet Software Configuration Guide: MPLS Applications*.

The JUNOS software supports the following enterprise-specific traps:

[Juniper Networks Enterprise-Specific SNMP Version 1 Traps on page 57](#)

[Juniper Networks Enterprise-Specific SNMP Version 2 Traps on page 65](#)

Juniper Networks Enterprise-Specific SNMP Version 1 Traps

The JUNOS software supports enterprise-specific version 1 traps shown in Table 7. The traps are organized first by trap category and then by trap name. The system logging severity levels are listed for those traps that have them. For traps that do not have corresponding system logging severity levels, the cell in the table is marked with an em-dash (—).

For more information about system log messages, see the *JUNOS Internet Software System Log Messages Reference*. For more information about configuring system logging, see the *JUNOS Internet Software Configuration Guide: Getting Started*.

Table 7: Enterprise-Specific Supported SNMP Version 1 Traps

Trap Category	Trap Name	Enterprise ID	Generic Trap Number	Specific Trap Number	System Logging Severity Level	System Log Tag
chassis	jnxFanFailure	1.3.6.1.4.1.2636.4.1	6	2	critical	CHASSISD_SNMP_TRAP
chassis	jnxFanOK	1.3.6.1.4.1.2636.4.2	6	2	critical	CHASSISD_SNMP_TRAP
chassis	jnxFruInsertion	1.3.6.1.4.1.2636.4.1	6	6	notice	CHASSISD_SNMP_TRAP
chassis	jnxFruPowerOff	1.3.6.1.4.1.2636.4.1	6	7	notice	CHASSISD_SNMP_TRAP
chassis	jnxFruPowerOn	1.3.6.1.4.1.2636.4.1	6	8	notice	CHASSISD_SNMP_TRAP
chassis	jnxFruRemoval	1.3.6.1.4.1.2636.4.1	6	5	notice	CHASSISD_SNMP_TRAP
chassis	jnxOverTemperature	1.3.6.1.4.1.2636.4.1	6	3	alert	CHASSISD_SNMP_TRAP
chassis	jnxPowerSupplyFailure	1.3.6.1.4.1.2636.4.1	6	1	critical	CHASSISD_SNMP_TRAP
chassis	jnxPowerSupplyOk	1.3.6.1.4.1.2636.4.2	6	1	critical	CHASSISD_SNMP_TRAP
chassis	jnxRedundancySwitchOver	1.3.6.1.4.1.2636.4.1	6	4	critical	CHASSISD_SNMP_TRAP
chassis	jnxTemperatureOK	1.3.6.1.4.1.2636.4.2	6	3	alert	CHASSISD_SNMP_TRAP
rmon-alarm	jnxRmonAlarmGetFailure	1.3.6.1.4.1.2636.4.3	6	1	—	—
rmon-alarm	jnxRmonGetOk	1.3.6.1.4.1.2636.4.3	6	2	—	—
routing	jnxLdpLspDown	1.3.6.1.4.1.2636.4.4	6	2	—	—
routing	jnxLdpLspUp	1.3.6.1.4.1.2636.4.4	6	1	—	—
routing	jnxMplsLspChange	1.3.6.1.4.1.2636.3.2.4	6	3	—	—
routing	jnxMplsLspDown	1.3.6.1.4.1.2636.3.2.4	6	2	—	—
routing	jnxMplsLspUp	1.3.6.1.4.1.2636.3.2.4	6	1	—	—

The sections that follow provide the Juniper Networks enterprise-specific MIBs for the SNMPv1 traps defined in Table 7, including:

[Chassis Version 1 Traps MIB on page 59](#)

[RMON Events and Alarms Version 1 Traps MIB on page 63](#)

[LDP Version 1 Traps MIB on page 63](#)

[MPLS Version 1 Traps MIB on page 64](#)

Chassis Version 1 Traps MIB

```
-- Chassis traps for chassis alarm conditions

jnxPowerSupplyFailure          TRAP-TYPE
ENTERPRISE jnxChassisTraps
VARIABLES {
    jnxContentsContainerIndex,
    jnxContentsL1Index,
    jnxContentsL2Index,
    jnxContentsL3Index,
    jnxContentsDescr,
    jnxOperatingState
}
DESCRIPTION
"A jnxPowerSupplyFailure trap signifies that
the specified power supply in the chassis has
been in the failure (bad DC output) condition."
 ::= 1

jnxFanFailure                  TRAP-TYPE
ENTERPRISE                      jnxChassisTraps
VARIABLES {
    jnxContentsContainerIndex,
    jnxContentsL1Index,
    jnxContentsL2Index,
    jnxContentsL3Index,
    jnxContentsDescr,
    jnxOperatingState
}
DESCRIPTION
"A jnxFanFailure trap signifies that the specified
cooling fan or impeller in the chassis has been in
the failure (not spinning) condition."
 ::= 2

jnxOverTemperature              TRAP-TYPE
ENTERPRISE                      jnxChassisTraps
VARIABLES {
    jnxContentsContainerIndex,
    jnxContentsL1Index,
    jnxContentsL2Index,
    jnxContentsL3Index,
    jnxContentsDescr,
    jnxOperatingTemp
}
DESCRIPTION
"A jnxOverTemperature trap signifies that the
specified hardware component in the chassis has
experienced over temperature condition."
 ::= 3
```

```

• jnxRedundancySwitchover          TRAP-TYPE
• ENTERPRISE                      jnxChassisTraps
• VARIABLES {
•   jnxRedundancyContentsIndex,
•   jnxRedundancyL1Index,
•   jnxRedundancyL2Index,
•   jnxRedundancyL3Index,
•   jnxRedundancyDescr,
•   jnxRedundancyConfig,
•   jnxRedundancyState,
•   jnxRedundancySwitchoverCount,
•   jnxRedundancySwitchoverTime,
•   jnxRedundancySwitchoverReason
• }
• DESCRIPTION
•   "A jnxRedundancySwitchover trap signifies that
•    the specified hardware component in the chassis
•    has experienced a redundancy switchover event
•    defined as a change in state of jnxRedundancyState
•    from master to backup or vice versa."
• ::= 4

• jnxFruRemoval          TRAP-TYPE
• ENTERPRISE              jnxChassisTraps
• VARIABLES {
•   jnxFruContentsIndex,
•   jnxFruL1Index,
•   jnxFruL2Index,
•   jnxFruL3Index,
•   jnxFruName,
•   jnxFruType,
•   jnxFruSlot }
• DESCRIPTION
•   "A jnxFruRemoval trap signifies
•    that the specified FRU (Field Replaceable Unit)
•    has been removed from the chassis."
• ::= 5

• jnxFruInsertion          TRAP-TYPE
• ENTERPRISE              jnxChassisTraps
• VARIABLES {
•   jnxFruContentsIndex,
•   jnxFruL1Index,
•   jnxFruL2Index,
•   jnxFruL3Index,
•   jnxFruName,
•   jnxFruType,
•   jnxFruSlot }
• DESCRIPTION
•   "A jnxFruInsertion trap signifies that
•    the specified FRU (Field Replaceable Unit) has been
•    inserted into the chassis."
• ::= 6

```

```

jnxFruPowerOff          TRAP-TYPE
ENTERPRISE                jnxChassisTraps
VARIABLES {
    jnxFruContentsIndex,
    jnxFruL1Index,
    jnxFruL2Index,
    jnxFruL3Index,
    jnxFruName,
    jnxFruType,
    jnxFruSlot,
    jnxFruOfflineReason,
    jnxFruLastPowerOff,
    jnxFruLastPowerOn }

STATUS      current
DESCRIPTION
    "A jnxFruPowerOff trap signifies that the SNMPv2
     entity, acting in an agent role, has detected
     that the specified FRU (Field Replaceable Unit)
     has been powered off in the chassis."
::= 7

jnxFruPowerOn          TRAP-TYPE
ENTERPRISE                jnxChassisTraps
VARIABLES { jnxFruContentsIndex,
    jnxFruL1Index,
    jnxFruL2Index,
    jnxFruL3Index,
    jnxFruName,
    jnxFruType,
    jnxFruSlot,
    jnxFruOfflineReason,
    jnxFruLastPowerOff,
    jnxFruLastPowerOn }

STATUS      current
DESCRIPTION
    "A jnxFruPowerOn trap signifies that the SNMPv2
     entity, acting in an agent role, has detected that
     the specified FRU (Field Replaceable Unit) has been
     powered on in the chassis."
::= 8

```

- - Traps for chassis alarm cleared conditions

```

jnxPowerSupplyOK          TRAP-TYPE
ENTERPRISE                jnxChassisOKTraps
VARIABLES {
    jnxContentsContainerIndex,
    jnxContentsL1Index,
    jnxContentsL2Index,
    jnxContentsL3Index,
    jnxContentsDescr,
    jnxOperatingState }
DESCRIPTION
"A jnxPowerSupplyOK trap signifies
that the specified power supply in the
chassis has recovered from the failure (bad DC output)
condition."
 ::= 1

jnxFanOK                 TRAP-TYPE
ENTERPRISE                jnxChassisOKTraps
VARIABLES {
OBJECTS   {
    jnxContentsContainerIndex,
    jnxContentsL1Index,
    jnxContentsL2Index,
    jnxContentsL3Index,
    jnxContentsDescr,
    jnxOperatingState }
DESCRIPTION
"A jnxFanOK trap signifies that
the specified cooling fan or impeller in the chassis
has recovered from the failure (not spinning) condition."
 ::= 2

jnxTemperatureOK          TRAP-TYPE
ENTERPRISE                jnxChassisOKTraps
VARIABLES {
    jnxContentsContainerIndex,
    jnxContentsL1Index,
    jnxContentsL2Index,
    jnxContentsL3Index,
    jnxContentsDescr,
    jnxOperatingTemp }
DESCRIPTION
"A jnxTemperatureOK trap signifies
that the specified hardware component
in the chassis has recovered from over temperature
condition."
 ::= 3

-- ::= 4                         This OID is skipped intentionally.

```

RMON Events and Alarms Version 1 Traps MIB

```

-- define branches for jnx rmon traps
--
-- Note that we need jnxRmonTrapPrefix with the 0
-- sub-identifier to make this MIB translate to
-- an SNMPv1 format in a reversible way. For example
-- it is needed for proxies that convert SNMPv1 traps
-- to SNMPv2 notifications without MIB knowledge.
--

jnxRmonTraps          OBJECT IDENTIFIER ::= { jnxTraps 3 }
jnxRmonTrapPrefix      OBJECT IDENTIFIER ::= { jnxRmonTraps 0 }

jnxTraps               OBJECT IDENTIFIER ::= { juniperMIB 4 }

jnxRmonTraps           OBJECT IDENTIFIER ::= { jnxTraps 3 }

jnxRmonTrapPrefix      OBJECT IDENTIFIER ::= { jnxRmonTraps 0 }

jnxRmonAlarmGetFailure TRAP-TYPE
ENTERPRISE              jnxRmonTraps
VARIABLES               { alarmIndex, alarmVariable, jnxRmonAlarmGetFailReason }
DESCRIPTION
"The SNMP trap that is generated when the get request for an alarm
variable returns an error. The specific error is identified by
jnxRmonAlarmGetFailReason."
::= 1

jnxRmonGetOk           TRAP-TYPE
ENTERPRISE              jnxRmonTraps
VARIABLES               { alarmIndex, alarmVariable }
DESCRIPTION
"The SNMP trap that is generated when the get request for an alarm
variable is successful. This is only sent after previous attempts
were unsuccessful."
::= 2

```

LDP Version 1 Traps MIB

```

-LDP traps

jnxLdpLspUp           TRAP-TYPE
ENTERPRISE              jnxLdpTraps
VARIABLES {
    jnxLdpLspFec
    jnxLdpRtrid
}
STATUS                 mandatory
DESCRIPTION
"The SNMP trap that is generated when an LSP comes up."
::= 1

```

```
•   •  
•   jnxLdpLspDown      TRAP-TYPE  
•       ENTERPRISE      jnxLdpTraps  
•           VARIABLES {  
•               jnxLdpLspFec  
•               jnxLdpRtrid  
•               jnxLdpLspDownReason  
•           }  
•       STATUS          mandatory  
•       DESCRIPTION  
•           "The SNMP trap that is generated when the LSP goes down."  
•           ::= 2  
•   •
```

MPLS Version 1 Traps MIB

```
•   mplsLspUpV1        TRAP-TYPE  
•       ENTERPRISE      mplsTraps  
•           VARIABLES {  
•               mplsLspName,  
•               mplsPathName  -- LspPath  
•           }  
•       DESCRIPTION  
•           "An mplsLspUp trap signifies that the specified LSP is up. The current active  
•             path for the LSP is mplsPathName."  
•           ::= 1  
•   mplsLspDownV1       TRAP-TYPE  
•       ENTERPRISE      mplsTraps  
•           VARIABLES {  
•               mplsLspName,  
•               mplsPathName  -- LspPath  
•           }  
•       DESCRIPTION  
•           "An mplsLspDown trap signifies that the specified LSP is down, because the current  
•             active path mplsPathName went down."  
•           ::= 2  
•   mplsLspChangeV1     TRAP-TYPE  
•       ENTERPRISE      mplsTraps  
•           VARIABLES {  
•               mplsLspName,  
•               mplsPathName   -- toLspPath  
•           }  
•       DESCRIPTION  
•           "An mplsLspChange trap signifies that the the specified LSP has switched traffic to the new  
•             active path 'toLspPath'. The LSP maintains up state before and after the switch over"  
•           ::= 3  
•   •
```

Juniper Networks Enterprise-Specific SNMP Version 2 Traps

The JUNOS software supports the enterprise-specific version 2 traps shown in Table 8. The traps are organized first by trap category and then by trap name. The system logging severity levels are listed for those traps that have them. For traps that do not have corresponding system logging severity levels, the cell in the table is marked with an em-dash (—).

For more information about system messages, see the *JUNOS Internet Software System Log Messages Reference*. For more information about configuring system logging, see the *JUNOS Internet Software Configuration Guide: Getting Started*.

Table 8: Enterprise-Specific Supported SNMP Version 2 Traps

Trap Category	Trap Name	snmpTrapOID	System Logging Severity Level	System Log Tag
chassis	jnxFanFailure	1.3.6.1.4.1.2636.4.1.2	critical	CHASSISD_SNMP_TRAP
chassis	jnxFanOK	1.3.6.1.4.1.2636.4.2.2	critical	CHASSISD_SNMP_TRAP
chassis	jnxFruInsertion	1.3.6.1.4.1.2636.4.1.6	notice	CHASSISD_SNMP_TRAP
chassis	jnxFruPowerOff	1.3.6.1.4.1.2636.4.1.7	notice	CHASSISD_SNMP_TRAP
chassis	jnxFruPowerOn	1.3.6.1.4.1.2636.4.1.8	notice	CHASSISD_SNMP_TRAP
chassis	jnxFruRemoval	1.3.6.1.4.1.2636.4.1.5	notice	CHASSISD_SNMP_TRAP
chassis	jnxOverTemperature	1.3.6.1.4.1.2636.4.1.3	critical	CHASSISD_SNMP_TRAP
chassis	jnxPowerSupplyFailure	1.3.6.1.4.1.2636.4.1.1	alert	CHASSISD_SNMP_TRAP
chassis	jnxPowerSupplyOK	1.3.6.1.4.1.2636.4.2.1	critical	CHASSISD_SNMP_TRAP
chassis	jnxRedundancySwitchOver	1.3.6.1.4.1.2636.4.1.4	critical	CHASSISD_SNMP_TRAP
chassis	jnxTemperatureOK	1.3.6.1.4.1.2636.4.2.3	alert	CHASSISD_SNMP_TRAP
rmon-alarms	jnxrisingAlarm	1.3.6.1.1.2.1.16.0.1	—	—
rmon-alarm	jnxfallingAlarm	1.3.1.2.1.16.0.2	—	—
rmon-alarm	jnxRmonAlarmGetFailure	1.3.6.1.4.1.1.2636.4.3.0.1	—	—
rmon-alarm	jnxRmonGetOk	1.3.6.1.4.1.2636.4.3.0.2	—	—
routing	jnxLdpLspDown	1.3.6.1.4.1.2636.4.4.0.2	—	—
routing	jnxLdpLspUp	1.3.6.1.4.1.2636.4.4.0.1	—	—
routing	jnxMplsLspUp	1.3.6.1.4.1.2636.3.2.4.1	—	—
routing	jnxMplsLspDown	1.3.6.1.4.1.2636.3.2.4.2	—	—
routing	jnxMplsLspChange	1.3.6.1.4.1.2636.3.2.4.3	—	—

The sections that follow provide the Juniper Networks enterprise-specific MIBs for the SNMPv2 traps defined in Table 8, including:

- Chassis Version 2 Traps MIB on page 66
- RMON Alarm and Event Version 2 Traps MIB on page 69
- LDP Version 2 Traps MIB on page 70
- MPLS Version 2 Traps MIB on page 71

Chassis Version 2 Traps MIB

```
-- Traps for chassis alarm cleared conditions

jnxPowerSupplyOK           NOTIFICATION-TYPE
OBJECTS {
    jnxContentsContainerIndex,
    jnxContentsL1Index,
    jnxContentsL2Index,
    jnxContentsL3Index,
    jnxContentsDescr,
    jnxOperatingState }
STATUS                  current
DESCRIPTION
    "A jnxPowerSupplyOK trap signifies that the
    SNMPv2 entity, acting in an agent role, has
    detected that the specified power supply in the
    chassis has recovered from the failure (bad DC output)
    condition."
::= { jnxChassisOKTraps 1 }

jnxFanOK                 NOTIFICATION-TYPE
OBJECTS{
    jnxContentsContainerIndex,
    jnxContentsL1Index,
    jnxContentsL2Index,
    jnxContentsL3Index,
    jnxContentsDescr,
    jnxOperatingState }
STATUS                  current
DESCRIPTION
    "A jnxFanOK trap signifies that the SNMPv2
    entity, acting in an agent role, has detected that
    the specified cooling fan or impeller in the chassis
    has recovered from the failure (not spinning) condition."
::= { jnxChassisOKTraps 2 }
```

```

jnxTemperatureOK           NOTIFICATION-TYPE
OBJECTS{
    jnxContentsContainerIndex,
    jnxContentsL1Index,
    jnxContentsL2Index,
    jnxContentsL3Index,
    jnxContentsDescr,
    jnxOperatingTemp }
STATUS                  current
DESCRIPTION
    "A jnxTemperatureOK trap signifies that the
    SNMPv2 entity, acting in an agent role, has
    detected that the specified hardware component
    in the chassis has recovered from over temperature
    condition."
::= { jnxChassisOKTraps 3 }

- ::= { jnxChassisOKTraps 4 }          This OID is skipped intentionally.

jnxFruRemoval           NOTIFICATION-TYPE
OBJECTS {
    jnxFruContentsIndex,
    jnxFruL1Index,
    jnxFruL2Index,
    jnxFruL3Index,
    jnxFruName,
    jnxFruType,
    jnxFruSlot }

STATUS                  current
DESCRIPTION
    "A jnxFruRemoval trap signifies that the SNMPv2
    entity, acting in an agent role, has detected
    that the specified FRU (Field Replaceable Unit)
    has been removed from the chassis."
::= { jnxChassisTraps 5 }

jnxFruInsertion          NOTIFICATION-TYPE
OBJECTS {
    jnxFruContentsIndex,
    jnxFruL1Index,
    jnxFruL2Index,
    jnxFruL3Index,
    jnxFruName,
    jnxFruType,
    jnxFruSlot }

STATUS                  current
DESCRIPTION
    "A jnxFruInsertion trap signifies that the SNMPv2
    entity, acting in an agent role, has detected that
    the specified FRU (Field Replaceable Unit) has been
    inserted into the chassis."
::= { jnxChassisTraps 6 }

```

```
• jnxFruPowerOff NOTIFICATION-TYPE
  OBJECTS {
    jnxFruContentsIndex,
    jnxFruL1Index,
    jnxFruL2Index,
    jnxFruL3Index,
    jnxFruName,
    jnxFruType,
    jnxFruSlot,
    jnxFruOfflineReason,
    jnxFruLastPowerOff,
    jnxFruLastPowerOn }

  STATUS          current
  DESCRIPTION
    "A jnxFruPowerOff trap signifies that the SNMPv2
     entity, acting in an agent role, has detected
     that the specified FRU (Field Replaceable Unit)
     has been powered off in the chassis."
  ::= { jnxChassisTraps 7 }

jnxFruPowerOn NOTIFICATION-TYPE
  OBJECTS {
    jnxFruContentsIndex,
    jnxFruL1Index,
    jnxFruL2Index,
    jnxFruL3Index,
    jnxFruName,
    jnxFruType,
    jnxFruSlot,
    jnxFruOfflineReason,
    jnxFruLastPowerOff,
    jnxFruLastPowerOn }

  STATUS          current
  DESCRIPTION
    "A jnxFruPowerOn trap signifies that the SNMPv2
     entity, acting in an agent role, has detected that
     the specified FRU (Field Replaceable Unit) has been
     powered on in the chassis."
  ::= { jnxChassisTraps 8 }
```

RMON Alarm and Event Version 2 Traps MIB

```
-- define branches for jnx rmon traps
--
-- Note that we need jnxRmonTrapPrefix with the 0
-- sub-identifier to make this MIB translate to
-- an SNMPv1 format in a reversible way. For example
-- it is needed for proxies that convert SNMPv1 traps
-- to SNMPv2 notifications without MIB knowledge.
--

jnxRmonTraps          OBJECT IDENTIFIER ::= { jnxTraps 3 }
jnxRmonTrapPrefix      OBJECT IDENTIFIER ::= { jnxRmonTraps 0 }

jnxRmonAlarmGetFailure NOTIFICATION-TYPE
    OBJECTS {
        alarmIndex
        alarmVariable
        jnxRmonAlarmGetFailReason
    }
    STATUS         current
    DESCRIPTION
        "The SNMP trap that is generated when the get request for an alarm
        variable returns an error. The specific error is identified by
        jnxRmonAlarmGetFailReason."
    ::= { jnxRmonTrapPrefix 1 }

jnxRmonGetOk          NOTIFICATION-TYPE
    OBJECTS {
        alarmIndex
        alarmVariable
    }
    STATUS         current
    DESCRIPTION
        "The SNMP trap that is generated when the get request for an alarm
        variable is successful. This is only sent after previous attempts
        were unsuccessful."
    ::= { jnxRmonTrapPrefix 2 }
```

- **LDP Version 2 Traps MIB**

```

-- define branches for jnx ldp traps
--
-- Note that we need jnxLdpTrapPrefix with the 0
-- sub-identifier to make this MIB translate to
-- an SNMPv1 format in a reversible way. For example
-- it is needed for proxies that convert SNMPv1 traps
-- to SNMPv2 notifications without MIB knowledge.
--

jnxLdpLspUp      NOTIFICATION-TYPE
OBJECTS {
    jnxLdpLspFec
    jnxLdpRtrid
}
STATUS          current
DESCRIPTION
    "The SNMP trap that is generated when an LSP comes up."
::={ jnxLdpTrapPrefix 1 }

jnxLdpLspDown    NOTIFICATION-TYPE
OBJECTS {
    jnxLdpLspFec
    jnxLdpRtrid
    jnxLdpLspDownReason
}
STATUS          current
DESCRIPTION
    "The SNMP trap that is generated when the LSP goes down."
::={ jnxLdpTrapPrefix 2 }

```

MPLS Version 2 Traps MIB

```
-- definition of MPLS traps
--
mplsTraps      OBJECT IDENTIFIER ::= { mpls 4 }

mplsLspUp      NOTIFICATION-TYPE
OBJECTS {
    mplsLspName,
    mplsPathName } -- LspPath
STATUS         current
DESCRIPTION
    "An mplsLspUp trap signifies that the
    specified LSP is up. The current active
    path for the LSP is mplsPathName."
 ::= { mplsTraps 1 }

mplsLspDown     NOTIFICATION-TYPE
OBJECTS {
    mplsLspName,
    mplsPathName } -- LspPath
STATUS         current
DESCRIPTION
    "An mplsLspDown trap signifies that the
    specified LSP is down, because the current
    active path mplsPathName went down."
 ::= { mplsTraps 2 }

mplsLspChange   NOTIFICATION-TYPE
OBJECTS {
    mplsLspName,
    mplsPathName } -- toLspPath
STATUS         current
DESCRIPTION
    "An mplsLspChange trap signifies that the
    the specified LSP has switched traffic to
    the new active path 'toLspPath'. The LSP maintains
    up state before and after the switch over"
 ::= { mplsTraps 3 }
```

